

# CACTUS AND SUCCULENT JOURNAL

Of the Cactus And Succulent Society  
Of America

Vol. VI    DECEMBER, 1934    No. 6



*Coryphantha neo-mexicana*, a plant found in Cimarron County, Oklahoma. This species has its range from Colorado throughout New Mexico to northeast Mexico and in western Texas and northwest Oklahoma.



## CACTUS AND SUCCULENT JOURNAL

Published and Owned by

The Cactus and Succulent Society of America, 6162 N. Figueroa St., Los Angeles, California (Mail Address Only.) A monthly magazine to promote the Society and devoted to Cacti and Succulents for the dissemination of knowledge and the recording of hitherto unpublished data in order that the culture and study of these particular plants may attain the popularity which is justly theirs. "The Cactaceae," by N. L. Britton and J. N. Rose, has been adopted by this journal for purposes of identification. (Membership and subscription \$3.00 per year, foreign \$3.00 per year by International money order.) Mail membership application to the Society at 6162 N. Figueroa Street, Los Angeles, Calif. (\$3.00 MUST accompany the application.) *Managing Editor*, SCOTT HASELTON, 6162 N. Figueroa St., Los Angeles, Calif.; *Assistant Editor and Chairman Membership Committee*, MRS. H. WESTON; *Editorial Staff*, JAMES WEST, 745 Fifth Ave., San Rafael, Calif.; ERIC WALTHER, 2607 McAllister St., San Francisco, Calif.; EDGAR M. BAXTER, Bellflower, Calif.; CLARENCE CLUM, 2443 Echo Park Ave., Los Angeles, Calif.

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## SAN FRANCISCO BAY REGION ORGANIZES

The Desert Tradin' Post has been established as a meeting place where collectors, fanciers and students of succulent plants may gather informally and make friendly contacts with others who have similar tastes in plants: to discuss, and exchange ideas, disseminate information, swap stories and plants, dicker, barter and trade.

The Tradin' Post is presented as a cooperative project that can yield much pleasure and many benefits to all participants.

The meeting place was offered together with a rock garden and greenhouse space; many authoritative books loaned and donated for the start of a library. It was decided to forego any attempt at a plan of formal organization now but to have an exchange for plants as well as for information, hence, the name—The Desert Tradin' Post.

The plan evolved to start with is:

- Name: Desert Tradin' Post.  
 Place: A garden cottage, rock garden and greenhouse at 1952 Hopkins Street, Berkeley.  
 Time: The 2nd and 4th week ends of each month (i.e. Saturday afternoon 1 to 5 and Sunday 10 to 4). The first general gathering set for the 2nd week end in October.  
 Cost: The gift of a plant to the Tradin' Post for a permanent exhibit (this joining-up makes you a "Trader").  
 Library: At this time many books have been loaned or donated.

Operation: Each trader is asked to bring a friend, some plants to trade (a chance to dispose of your duplicates and acquire new species for your collection) and some pet specimen for a temporary exhibit.

There will be about 40 spaces 16 in. x 30 in. available in the greenhouse for the first meeting and lots of room in the rock garden. If you have plants to classify, bring them; you will find proper authorities and many willing helpers.

Benefits: Are up to you. Entirely mutual—what you can derive and what you can give. The Tradin' Post asks for loans or donations of whatever literature, pertaining in any way to succulent plants, that you may be willing to bring or send; books, periodicals, bulletins, catalogues, clippings etc., photographs too.

The interest and willingness to co-operate manifested by those interviewed indicates that the Tradin' Post will "go over big."

Please do not write for further information, as The Tradin' Post has no secretary, no stationery and no stamps; but call up Thornwall 0588 or come to 1952 Hopkins Street, Berkeley, and the "Keeper" will be happy to give all the information there is.

THE TRADIN' POST.

An Oklahoma group have requested suggestions for a name for their cactus club. Please send your suggestion to Mrs. H. Weston, 6162 N. Figueroa St., Los Angeles, Calif.



Photograph by A. B. Clayton, English Village Studio, El Centro.

*Bergerocactus emoryi* growing on the Coronados Islands off the coast of San Diego. The picture shows a typical group of this species, the whole cluster probably being the outgrowth of one original stem. Note the white flowers of the little annual *Mesembryanthemum* (Iceplant) growing on both sides of and below the cactus.

## California Cacti

### XVII BERGEROCACTUS EMORYI

By E. M. BAXTER

Our golden spined *Cereus* is one of the oddities of the cactus family. With only the single species in the genus, its nearest relatives are more than 2000 miles away to the South—*Leocereus* of Brazil. The genus was named for the German botanist, Alwin Berger. It and the giant cactus, *Carnegiea gigantea*, are California's only two columnar *Cereus*.

*Bergerocactus emoryi* in earlier days was quite plentiful on the coast of California nearly to the Orange County line. Collectors have done such a good job of clearance that today the finding of a plant on the mainland is a real discovery. It may still be found on the islands as far north as Santa Catalina, and is plentiful in Baja California.

Plants multiply by sending out branches from below the surface of the ground. A narrow stem will grow out from next to the root and upon reaching the surface of the

ground will thicken into a full sized stem. Branches generally grow only for one season, although sometimes it may send a second growth from the top and if injured may branch out at the point of injury. A matured branch will stand for several years and finally die, the new stems carrying on the plant's development. If a stem falls or is knocked over it may start a new plant from some spot along its length. In this manner large colonies are formed.

Stems are two to three feet high, ribbed with about 20 low ribs, these often nearly tubercled. Flowers are lemon yellow, very short, and opening widely like a few-petaled *Cylindropuntia*. The ovary is heavily covered with short yellow spines that remain after the fruit is matured. Its spines are deep yellow and very numerous. They are generally short, but stems may develop one or more two to

two and a half inch central spines at an areole.

Locally there has been much trouble in getting cuttings to root. I have found that by planting cut stems relatively deep the lower part will dry up, but will heal over with a callus and from this will make new roots and stems. What so often happens is that the lower end will dry up just to the surface and so not be noticed, but will effectively stop any attempt of the plant to send out roots. Meanwhile the cutting is supported by the woody cylinder of the stem's interior structure. Once the plant is established it may be watered very freely and a beautiful plant will result. As old stems die, they may be carefully cut away near the surface of the ground, but complete removal will also remove the growing point for new stems.

Flowers are not very common in either cultivated or wild plants. A specimen for a collection is best secured from a dealer who has old plants growing from which to propagate cuttings. Seeds, when obtainable, grow quite readily and make very attractive plants in a short time.

The soil in which this species is found is quite rich with leaf mold, although under this is generally a rocky base. On the steep slopes of the native habitat they receive little rain but much moisture through the ocean fogs and mists. The soil is very well drained so that the roots are never wet. These conditions should be considered when cultivating the species.

#### SUCCULENT BOOK

W. T. Neale, a fellow member of Meeching Rise Nurseries, Newhaven, Sussex, England, reports the following:

"There is possibility of the publication of an English translation of the German book 'Die Sukkulenten.' This is probably the best all round book available on Succulents. I

understand, however, that as the cost of the edition will be considerable, the English publishers require a guaranteed circulation of approximately 300 copies before they will undertake it. Apparently the price will work out at £1 per copy.

In view of the fact that we are repeatedly asked for a book on Succulents, and our Monthly Circular is now posted to nearly 2000 people, I feel sure that among you there will be sufficient requiring this book to make its publication possible. Under the circumstances if all who are prepared to buy the book when published will kindly communicate with us as soon as possible, this may enable us to guarantee the edition so that it can be brought out without delay. The Author hopes to bring the English Edition up to date by the addition of new matter."

EDITOR'S NOTE: "Die Sukkulenten" is not to be confused with "Succulents" by A. J. Van Laren which was first published in Holland under the title "Vetplanten," and which has now been translated and published in America. The English publication of "Die Sukkulenten" would be a most welcome addition to the literature on the subject and we strongly urge those interested in advance subscriptions to communicate with Mr. Neale direct so that the edition may be assured.

S. E. H.

As the Secretary of the Cactus and Succulent Society of New Mexico, I have been instructed by the Society to register the sincere hope that the continuation of the reprint of Volume 2 of Britton and Rose will be undertaken.

While there are only two subscribers in Roswell, the JOURNAL is placed at the disposal of all members of our Society and frequently some very favorable comment is made upon the admirable work that the National Society is doing.

We wish, through this medium to express our most sincere appreciation for the work, and it is with greatest anticipation that we look forward to the publication of Volume 2.

## Century of Progress Cactus Exhibit

A most gratifying letter has been received from member Robert Van Tress of the Chicago Cactus Society regarding the exhibit at the World's Fair in that city. Mr. Van Tress, who is the chairman of the nomenclature committee for the exhibit, is extravagant in his praise for the cooperation given the Chicago club by our many members and commercial growers who so generously sent plants to the display. He very modestly makes no mention

of the enormous task he and his associates performed in making the show one of the outstanding exhibits at the fair, and certainly the most spectacular horticultural showing.

Some idea of the enormity of the undertaking can be seen in the bald statement that a total of 1,411 plants representing 305 different species in 81 genera were planted in the display, which was grouped to represent a California garden, planted around a repro-



A section of the out door exhibit at the Century of Progress, Chicago, 1934

duction of a California hacienda. The Cactus family numbered 668 plants representing 153 species in 40 genera. The Chicago club can be proud of their work in staging the finest collection of succulent plants ever exhibited in the middle west.

Among the outstanding plants were a two foot *Astrophytum ornatum* (does any member recall having ever seen a bigger one?); a four foot *Lemaireocereus dumortieri*; a *Dendrocereus nudiflorus* six feet tall and a *L. pruinosus* of three feet all sent by member William Leasure of 4431 Montana St., El Paso, Texas. We are informed that crowds were always gathered around the two favorite monstrosities of our veteran collector, Mr. Howard Gates of Anaheim, California, a huge *Machaerocereus eruca* ("The Creeping Devil") and a three foot *Lophocereus schottii monstrosus*.

"Cactus Pete's" collection of more than 50 plants of California desert cacti and other species made an imposing display. One wonders how many desert miles he traversed in collecting them. Twenty six Agaves were included in the garden as were several fine Euphorbia specimens. In the center of a patio was a huge star, emblematic of the lone

star state, made entirely of small native Texas species sent by Mr. J. B. Ely, Cisco, Texas.

The list of those supplying the plants and to whom the Cactus and Succulent Society is forever indebted, follows: Howard E. Gates, Anaheim, Calif.; California Cactus Nursery, Van Nuys, Calif.; Hagenburger Plant Gardens, West Los Angeles, Calif.; Cactus Pete, Los Angeles, Calif.; Rimrock Cactus Garden, Los Angeles, Calif.; Knickerbocker Nursery, San Diego, Calif.; McCabe Cactus Nursery, San Diego, Calif.; J. B. Ely, Cisco, Texas; Mrs. Fred Clark, Van Horn, Texas; Shiner Cactus Nursery, Laredo, Texas; J. H. Leasure, El Paso, Texas; Roswell Cactus Club, Roswell, New Mexico; Southwest Desert Nurseries, Las Cruces, New Mexico; Roy Dimick, Tucson, Arizona; Border Cactus Nursery, Nogales, Arizona; Ida Whittman, Phoenix, Arizona; University of Arizona, Tucson, Arizona and the Ornamental Nursery, St. James City, Florida.

All the plants are to be donated to the Garfield Park Conservatory, Chicago, where they will form a permanent exhibit and a noteworthy addition to the present collection there.

C. L. C.



## Cacti in Canada

By H. E. LEFEVRE

I have been a member of the Cactus Society for some three years and wish to say that during that period I have enjoyed the JOURNAL a great deal. A few days ago I received a letter from the Secretary of the Society asking members what type of articles they like best. So far as I am concerned, I might say that the thing I like best about the Journal is the variety of articles found in it. First of all I probably would place the excellent photographs that are to be found in every issue; next would come the articles of human interest, particularly those having to do with collecting adventures in the cactus country, and also with the experiences of cactus collectors and fanciers in parts far removed from the natural habitat of the plants. Scientific descriptions should, however, not be excluded. I hope some day the finances of the Society will permit of more colored reproductions.

I was interested to read in your September issue of the predicament of your Newfoundland correspondent.\* If I may be allowed to do so, I shall relate some of my own experiences and observations, some of which might prove of interest to collectors living in Northern climates, and incidentally to your correspondent (I hope he becomes a member.). As a specific remedy in his recent plight, I am afraid that he will have to take rather radical steps. The plants should be pruned as soon as unhealthy parts appear, and cut back to absolutely healthy tissue. The soil may have become acid or soggy, and if the plants have been in the same pot for some time undoubtedly they should be repotted in clean fresh soil. The condition of the root system might give useful information as to what has gone wrong with the plants. There should not be much trouble with plants like *Opuntias*; even half a joint of healthy tissue should strike root easily and start a new healthy plant. With respect to *Epiphyllums*, it may be that the plants are starved. Cutting back, repotting, and later an occasional light application of commercial fertilizer might prove helpful. A few cents worth of Fertabs or preferably Fertilettes would last your correspondent a good many years. One Fertab or ½ Fertilette given dissolved in water every six weeks during the growing season would

be sufficient for an *Epiphyllum* in a 5 or 6 in. pot. No fertilizer should be given during the resting period.

I, personally, am more interested in the desert forms of cactus than in the subtropical species, and my favorite genera are *Echinocereus* and *Ferocactus*. At one time I had probably 200 plants belonging to some 40 or 50 species. I lost a few, sold a few, gave a good many away, and just now am left with about 75 plants. My main impression is one of great admiration for the ability of the plants to stand almost any kind of adverse condition.

My interest in cacti began in 1927. I was then living in the States and travelling through the West. Somewhere in Colorado I was so strongly impressed with the beauty of an *Opuntia* in full bloom that I felt those plants were worthy of cultivation. It never occurred to me at the time that someone else might have tried it before. So I dug up a small *Cylindropuntia*, rolled it carefully in a soiled shirt and carried it around to Los Angeles and Vancouver and back to New York. For four weeks every shirt or hose or handkerchief I owned was full of what I later learned were glochids, but I had the true pioneer spirit, and it did not matter. When back in New York, I proudly put my cactus in a glass of water, and then had to go away again for a week or ten days. When I came back the plant was so completely covered with and disfigured by insects that I was forced to throw it away.

In 1928 I moved to Montreal and shortly after began building my collection by purchasing plants from the late J. H. Callender of Peterborough, Ont. He was a fine man to deal with, and it was he who induced me to join the Society. Since then I have been building up my collection from various sources, mainly by direct importation from the Southwestern states. As at times I have to travel quite a bit, I occasionally had let my collection do as best it could by itself and broke almost every rule given for the cultivation of cacti. For example, one summer I had a *Lophophora williamsii* which I had planted on the edge of a rock garden. The plant became completely covered by nasturtiums for three months, and never seemed to mind it a bit. In fact during that

\*See Question Column Vol. VI. No. 4, p. 40.

period it started to form a second head.

The greatest difficulty in keeping a collection of cacti in good condition under the climatic conditions that we have here is the housing during the winter. The ideal is to keep them in a dry, cool and sunny position. The warmer their winter location will be, the more difficult the watering problem will prove to be. I lost a plant from overwatering, but I lost several from keeping them too dry during the winter, particularly when kept in ordinary house conditions. The trouble is that if you keep your plants warm and water them so that they will not dry up, they will keep on growing—more or less—and not enter into any rest period. This growth is unhealthy and weakens the plant considerably, and ultimately leads to its loss. There is generally not enough light to prevent the growth from being very straggly.

I am fortunate enough this year to live in a house with a sunroom with a western exposure that can be kept unheated if necessary. My plants were placed in that sunroom last fall, and left there through the winter. One night I came in and the temperature was 27, or 5 degrees below freezing. This naturally was accidental, I had not meant to let the temperature drop that much, but at the time the outside temperature was 30 below zero, and during the day the wind had started to blow real hard right into my window. I lost 5 or 6 of my most tender plants, including an Aloe, *Lophophora williamsii*, *Ariocarpus fissuratus*, etc. The rest came through, not only unharmed, but in better shape than ever. I had blooms consistently for six weeks in the early summer. Even a small *Echinocereus reichenbachii* which after this incident was placed in a dish garden as a center piece for the dining room table, far from any natural light, and more or less abandoned to its unhappy fate, came through in June with a totally unexpected bloom.

To all collectors in the north, therefore, my first advice would be: try to give your plants a real resting period during the winter. Never mind how hard this resting period will be (I am now talking only about comparatively hardy desert plants.) My second advice, almost as strong, would be: put your plants outdoors for the summer. According to my experience plants placed directly in the soil do far better than those left in pots and plunged in the soil, but even that is very beneficial. If you have no garden and have to keep your pots, say, on a window, try to

rig up some sort of a flat box in which you will keep the pots with either peat or moss or soil between the pots. If you leave your pots directly exposed to the rays of the sun during the summer you are almost sure to badly damage the root system of the plants.

Under local conditions it is hardly possible to move the plants into the open before the first of June. It should be remembered that the sun is very strong at this period of the year, and the passage from indoor quarters to a sunny outdoor exposure should be a very gradual one. This spring I learned my lesson. I thought I had been very careful, but much to my sorrow one fine morning I found two of my plants sick with a bad case of sunstroke. They both were completely bleached on the side which was facing the sun—an eastern exposure. Naturally these had to be two of my most treasured possessions: an *Echinocactus grusonii* and a *Lophocereus schottii monstrosus*. The plants, however, have not been otherwise damaged; I examined them just a few days ago, and each had an excellent root system.

During the summer I make absolutely no effort to shield my plants from the rain or any other atmospheric condition. I leave them as long as I possibly can. Some I planted in ordinary garden soil, for others I mixed some sand with the soil, but it really seems to have made no difference whatever. I am, however, trying to place them always in a well drained position. In fact, my ideal position for them is in the rock garden. I always add either lime or wood ashes to the soil where they are to be planted.

This brings me to another point which I have not seen mentioned anywhere: I happen to be Manager for Canada of the company representing the European producers of potash, and for ten years have been following very closely the subject of plant nutrition. Experiments in England under the auspices of the Royal Horticultural Society, on apple trees, have shown that in sunless years potash acts as a "partial substitute for sunshine." This is not the place to go into technical details, but only as a precautionary measure, I would advise all collectors living under comparatively sunless skies, or having to keep their plants indoors for a long period, to see that their soil is well provided with potash. This can be very easily achieved by using wood ashes as a source of lime. Collectors having only a few plants and no wood ashes can replace these by tobacco ashes,

which are a very excellent source of both lime and potash.

I leave my plants outside as long as I possible can. They are still outside now (Sept. 26th.) and taking the weather as it comes. I am making preparations to bring them in, however, and putting them into pots or flats. These I shall leave outside until a frost threatens; then I shall bring them in at night, but even then I might take them out again on sunny days, until real freezing weather sets in. Naturally, particularly tender species will be brought in earlier.

From the first days of my collection I have noticed that plants kept together in metal or wooden boxes or flats do much better than those kept in individual pots. Using boxes has the advantage of saving considerable space and handling. The roots of the plants are much better. For one thing, they can develop in a more natural position; and then again the soil in boxes does not dry up so hopelessly fast as in pots as a result of heating conditions in modern houses. Plant in the open ground in summer, and keep in boxes in winter, (and in summer if you have no garden). Cacti look much better when you see several of them together, and if so inclined you can arrange the plants in your boxes in very pleasing ways, with chips from well weathered limestone rocks in-between, etc.

What I have just said applies to plants that would go into pots up to 4 in. For larger plants I am somewhat scared of this bi-annual handling. I am scared because of the disturbing effect on the plant itself, and also I am afraid of seeing rot appear through root injuries. I do not know what to recommend, however. This year I did experiment with two *Homalocephala texensis*, both 8 in. in diameter in the spring; one was kept in its pot and the pot plunged in the soil and the other one was planted directly in the soil. The latter has without doubt made the better growth of the two, and has developed a re-

markable root system. Some time ago Mr. Armstrong of Vancouver wrote on this subject in the JOURNAL. I wonder what he, or any other fancier with experience in this particular subject, would recommend regarding what, with due consideration for our high latitudes, we might call the larger plants.

I have one more question in mind. Several times in the JOURNAL I saw references of one sort or another to persons in Canada interested in the subject of Cacti. If there are members of the Society in Eastern Canada, or even fanciers who are not members, I would very much like to get in touch with them, to exchange information, possibly plants, etc. With members in New York and New England we might also exchange information and visits, if not plants. For five years I was French Secretary to the Canadian Society of Technical Agriculturists and French Editor of Scientific Agriculture, and I would be glad to obtain for such members any information on horticultural subjects or regulations from the Dominion Government or other competent sources.

H. E. LEFEVRE

I am very much in hopes you will be able to reprint the second Volume of "The Cactaceae" and will try to interest others.

E. C. H.

I hope the Journal will go on and reprint all of Britton and Rose. The secretary of our local Society was instructed some time ago to express to you the unanimous wish of the organization that the reprint be continued. We people back here in the junipers are willing to help all we can, and we already have a provision in our by-laws to the effect that to be eligible to hold office in our local society, one must be a member of the Cactus and Succulent Society of America.

C. H.

The price of the Journal and membership in the Society is \$3.00 per year. Mail subscriptions to H. Weston, Subscription Editor, 6162 N. Figueroa Street, Los Angeles, California.

#### VOLUME I, THE CACTACEAE

This issue of the Journal completes the first volume of Britton and Rose. If you desire to have your volume bound remove the center section of each issue and mail it to Mr. G. A. Frick, 1800 Marengo St., Los Angeles, Calif. A check of \$2 should be sent to cover cost of binding and return postage. These volumes will be received up to Jan. 31st and they will be bound and returned to you in February. Missing sections will be supplied if available at 35c each. Send your volume promptly. The Society will have a few copies of Vol 1 bound that will be sold for \$10 express paid.



## PRESIDENT'S COLUMN

November 27th, 1934.

Miss Kate O. Sessions, Vice-President,  
Pacific Beach, California.

Dear Friend whose plant knowledge has  
helped me through my lifetime:

I am happy to receive your very complete letter concerning the practical certainty of the splendid project of a really worth-while Cactus Garden in the California Pacific International Exposition at San Diego next year. Best of all is that it will remain a permanent glory to Balboa Park.

Who could more fittingly sponsor such a project than the very lady who first built that Park? Such a garden will, I feel, be of tremendous value to the cause in general, to the work of the Society, and to the Exposition itself.

No, the length of your letter and its many questions need no apologies. I am only glad that a person so busy and so authoritative as you can take such a constructive and hard-working interest.

First, however, I must mention that I shall remain the National President of the Cactus and Succulent Society of America for only six weeks more, to the very day, as I have steadfastly refused a third term. I consider third terms undesirable in any organization. I shall, however, then become automatically an interested Director.

Parenthetically: speaking of that name, I consider that a more accurate one would now be The Cactus and Succulent Society International, as we now have members in nearly every civilized country on earth. Such are well represented as Denmark, Sweden, Germany, England, France, Italy, Spain, Mexico, Argentina, Brazil, Japan, China, Australia, etc., etc.

The other day I had the pleasure of meeting President Belcher and the other officials of the Exposition.

At the last general meeting of the Society, I took pleasure in announcing that this project was in the air, and in asking that members be thinking about it constructively, and be willing to donate treasures to it.

Yes, I get an excellent idea of the proposed area from your rough sketch. And if there is anything I can do to further help create the plan, you may be sure I shall be glad. As he is away, I have no authority to say so; but I believe Mr. Hertrich would be also glad to cooperate.

Yes, I know, (though not exhaustively,) the magnificent Cactus fields of Old Mexico, where actual forests of several gigantic species stretch for miles upon miles, and where dainty miniature ones grow right in the shady floors of damp jungles; and the trees are festooned with Bromelias.

As far as I could see, Sinaloa and Sonora were the richest states in Cacti and Agaves, though many (conspicuously the *Cephalocereus senilis*) do grow down near Mexico City.

One of the finest sights in color that I ever saw was hundreds of acres of mountainside near Queretaro, naturalized to African Aloes that must have escaped from ancient gardens. I am sure that Mr. Hertrich well knows those regions too. Likewise Director Howard Gates, who is always cooperative, knows Baja California well. I imagine that Dr. W. S. Lowry of Laredo would be glad to share his knowledge of Texas and the nearby sections of Mexico.

Faithfully yours,

CHARLES G. ADAMS.

### SPECIAL BARGAINS

*Aichryon dichotomum* 10c; *Aloebeuginii* 15c, *nobilis* 10c, *spinosissima* 5, *striatula* 10c, *ciliaris* 5c; *Rushia hamata* 5c; *Gibbeum geminum* 10c; *Cephalophyllum alstonii* 10c; *Kalanchoe aliciae* 5c; *Sedum sempervivum* (pilosum) 15c; *Graptophyllum glutinosum* 15c; *Aeonium glutinosum* 10c; *Echeveria globosa cristatum* 15c; *Fenesttraria rhopalophylla* 15c; *Stapelia nobilis* 10c; *Faucaria haagii* 15c; *Gastroaloe pethamensis* 10c; *Crasula canesiense* 10c, *reversesetosa* 5c, *sarmentosa* 5c; *Caralluma lutea* 5c, *newbrowni* 5c. Prepaid on orders of \$1. If less, add 15c.

CHARLES L. CASS NURSERY  
Pacific Beach, Calif.

### A GOOD BUY

4 inch *Lophocereus schottii* ..... 50c  
4 inch *Pachycereus pringlei* ..... 50c  
3 inch *Ferocactus townsendianus* ..... 50c  
All three \$1.25 postpaid.

HOWARD GATES FAMOUS CACTUS  
GARDENS, 119 S. Illinois St., Anaheim,  
Calif.

## Notes on Oklahoma Cacti

By MARION SHERWOOD LAHMAN

Photographs by James Slack

### III THE CORYPHANTHAS

*Coryphantha vivipara* (Nuttall) Br. & Rose  
*Coryphantha radiosa* (Engelm.) Rydberg  
*Coryphantha neomexicana* (Engelm.) Br. & Rose

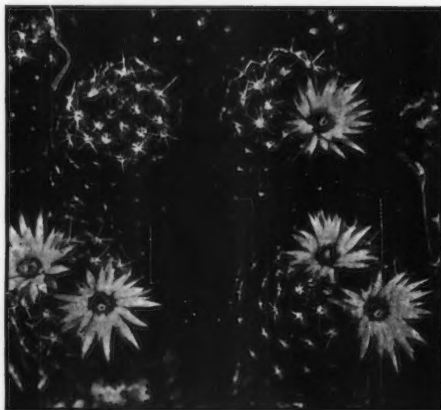
*Coryphantha columnaris* Lahman  
*Coryphantha aggregata* (Engelm.) Br. & Rose

Of this list, the first four form a set of variations about the naming of which authorities disagree. But there are at least four kinds of plants.

*Coryphantha vivipara* is listed in our State, but I have never found it here. It is the smallest and, except *Coryphantha columnaris*, the finest spined. It is the most northern in range; its southern limit, as reported, being



*Coryphantha radiosa* growing in Cimarron County, Oklahoma. The single flower is more or less characteristic of this species, as is the single stem. This species is found from western Oklahoma, western Texas, to New Mexico. While not recognized by Britton & Rose as being distinct, many botanists consider it so.



*Coryphantha aggregata* near Altus, Oklahoma. This picture shows well the flowers and the manner of growth of this species. Flowers are pink; spines are light at base and brown or black at outer end.

northern New Mexico. It is cespitose while the other three usually are solitary. Its stigmas are short-mucronate and magenta instead of obtuse and white.

*Coryphantha radiosa* is not recognized by Britton & Rose, yet there undeniably is a plant which is neither *Coryphantha vivipara* nor *Coryphantha neomexicana*. Wooten and Standley in "The Flora of New Mexico" call it *Mamillaria radiosa*. If the plant pictured is not *radiosa* it deserves the name, for the tubercles radiate from the plant body and the flower, when not crowded, opens out flat. Individual plants conform fairly well to type, which is more than can be said of *Coryphantha neo-mexicana*. It is a brave botanist who dares to make any definite classification of the variations in this group.

*Coryphantha neo-mexicana* is plentiful in the northwestern part of the State and in New Mexico. Old plants are inclined to be cone shaped and may be 7 to 8 cm. high. A three year old seedling is the size and shape of a half-inch marble (15 mm.).

*Coryphantha radiosa* is found in New Mexico, west Oklahoma, west Texas, and Mexico. It is the coarsest of the four in tubercles and spines.

*Coryphantha columnaris* was described and illustrated in the Cactus and Succulent Society JOURNAL for August, 1934.

*Coryphantha aggregata* is common in the southwestern part of the State where it often forms mats of 10 to 20 stems. Occasionally a solitary plant may be found. I have one over six years old that consists of an unusually large stem with a double crown like a huge molar tooth. The beautiful pink flowers come in May.

### QUESTION COLUMN

I enclose photograph of a plant which I would very much appreciate if you could help me to identify. I purchased the plant from a market gardener in Montreal. It grew from a 3 ribbed cutting and when I purchased it all joints were 3 ribbed, except one, which was flat. During the summer there appeared 4 or 5 new joints which are about the same length as those on the picture, but flat instead of 3 ribbed. Which is the normal form of the plant?

H. E. L.

The plant to which your refer is, in all probability, one of the many hybrids of *Epiphyllum*; more than likely, from appearance of photograph, one of the red-flowering varieties descending from *Heliocereus* ancestry, which is one of the most widely used parents for hybridizing with *Epiphyllums*. It is quite characteristic for this type of plant to throw both flat and three-angled joints.

CLARIAN STEELE.

Answering G. R. L. P., Canada, in Sept. JOURNAL.

The average life of the more commonly cultivated cacti is an unknown quantity. With most of them there seems to be no definite life span and they usually die an un-natural death from injury, neglect or severe weather. There are many of over twenty-five years of age that seem to be mere infants. There is no reason why many of them should not reach ages of fifty and a hundred years. A few such as *Echinocereus rigidissimus* and *Thelocactus bicolor* resent cultivation and only live a few years in the garden.

Branches of *Machaerocereus gummosus* and *Bergerocactus emoryi* do have a definite life cycle. In the *Bergerocactus* this appears to be three years and in the *Machaerocereus* about five years. However, as old branches die new ones spring from the base. As there

are few wild seedling *Bergerocactus*, the great size of many clumps indicates a very long life.

There are no distinguishing characteristics such as tree rings to determine age. Many of the columnar species show constrictions on the branches denoting the end of a period of growth, but these growth periods occur whenever there is sufficient moisture and warmth, which may be several times in one year or not once in several years. Lower California has just passed through three years of drought, during which many species made no perceptible growth.

HOWARD E. GATES.

EDITOR'S NOTE: Forest Shreve of the Carnegie Desert Laboratory in Arizona has promised us more information on this interesting subject.

### RHIPSALIS PRISMATICA

About three years ago I acquired a small plant of *Rhipsalis prismatica*, a small plant in a four-inch pot, the stems being not over six or eight inches long with many short branches. I have since repotted it into a size larger pot, making the soil mostly humus. The pendant stems have gradually increased in length, the longest now being about twenty inches and profusely branching at the ends. Knowing that this is a humid tropic epiphyte and reading that it must have a greenhouse culture to bloom I was quite elated when my beautiful plant covered itself with fragrant creamy white blossoms last February or March, after spending the winter in a bright unheated dry attic room, and we had many sub-zero nights, -20° being the record. The plant, which is about eight year old, always drops fully half of the short branchlets when I bring it indoors in the fall, but produces a good crop during the summer months.

A *Neomamillaria elongata* bloomed about the same time under the same conditions, and is about the same age, both species from cuttings.

I should like to hear from others who have to grow their cacti in living rooms during the winter.

B. HARTWELL CLARK, Conn.

EDITORIAL NOTE: We suggest that you refer to p. 225, Vol. IV, Britten & Rose, THE CACTACEAE as the plant you describe may be *Rhipsalis cassutha*.

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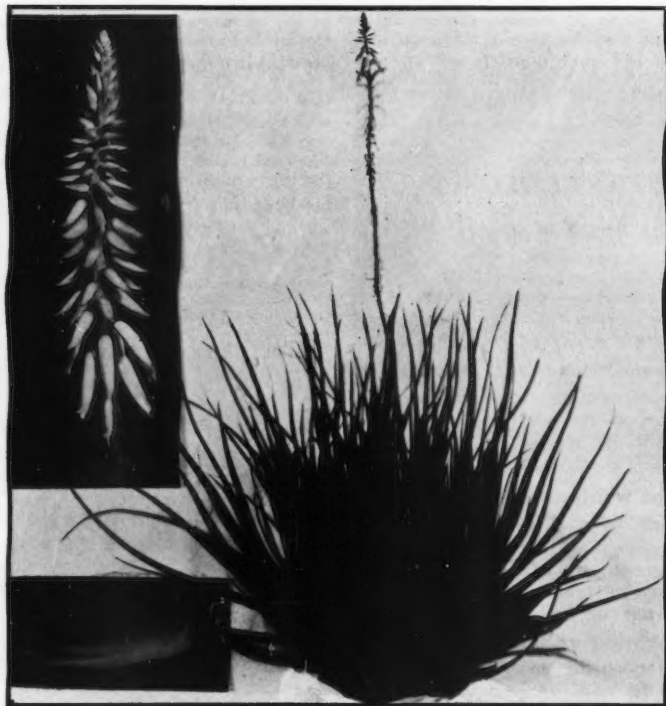
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## New Garden Species, V.

Edited by Dr. R. W. POINDEXTER



Plant x 0.1, spike x 0.4, flower x 1.0, Poindexter Photo.

### LEPTALOE HYBRID ATROVIRENS—Hort.

A. C. S. No. 6-136-624

PARENTAGE: Unidentified *Leptaloë* (seed parent).  
*Aloe striatula* (pollen parent).  
Hand pollinated.

ORIGINATOR: R. W. Poindexter, 1932.

DESCRIPTION: by R. W. Poindexter.

PLANT with short stems, branching freely from the base. STEMS 15 mm. in diam. LEAVES about 18 per rosette; 45-50 cm. long; 20 mm. wide and 4 mm. thick at base, tapering uniformly to a very slender tip; concave above; convex beneath; uniformly dark green, usually without spots; very minutely denticulate along lower 2/3 of edges at intervals of ca. 5mm. FLOWER STEM unbranched, stiff, slender; elongating as successive flowers open to an eventual length as great as 165 cm.; bracts slender, thin, early withering; pedicels 3 mm. long. FLOWERS

24 mm. long, tapering from base 5 mm. diam. to a point near the tip, after which the segments reflex slightly; perianth segments lanceolate, not joined in a tube; light yellowish green with paler margins, tinged with dull red, particularly unopened buds; pistil and stamens slightly exerted; flowers sterile; flowering at intervals throughout the year.

Alwin Berger set up *Leptaloë* as Sect. 2 of the genus *Aloe*, and it has been subsequently published as a genus. I have not been able to identify the particular *Leptaloë* which is the parent of the above hybrid. The plant is



believed to have been imported from Africa. It breeds true when fertilized with pollen from its own kind and therefore appears to be a true species. It may have been described as such though it does not fit any description available to me. It has some characteristics in common with *L. buchananii* and some in common with *L. brunneopunctata*.

The fact that *Leptaloe atrovirens* is completely sterile, as is also a second hybrid from the same parent with *Aloe brevifolia* confirms the separation of *Leptaloe* as a genus. I have made a great many crosses between diverse *Aloe* species. Thus far, in all cases where both parents belonged in the restricted genus *Aloe*, the progeny have shown at least partial fertility.

However, the primary reason for describing *Leptaloe* hyb. *atrovirens* is the fact that it has horticultural value. It is a healthy, vigorous plant, a strong grower, and does well in almost any soil. Its dark green, grass-like foliage is quite distinct among succulents and should make it valuable in landscape plans which call for a verdant spot as background or contrast in succulent plantings.

#### CULTURAL NOTES FROM MISSOURI

I wish to take this opportunity of expressing my appreciation for the enjoyment and benefit I have derived from the columns of the JOURNAL, both in caring for my cacti and in adding new ones to my collection. Please continue with the reprint of Britton & Rose.

For those members who are struggling to raise their cacti in a climate approximating that of St. Louis, my experience this summer may be of interest. After preparing a sloping bed of sandy soil laid over loose pebbles and broken brick to give drainage, 50-odd different kinds of cacti were taken out of their pots and placed in the soil. In a short time the transformation was complete. Some plants that had been in pots for two and three years without growing an inch and which I had about given up as hopeless, became new plants, the *Opuntias* tripled in size and spread, bloomed and one has borne fruit; the *Cerei* such as *Pachycereus marginatus*, *Trichocereus spachianus*, *T. pasacana*, *Lemaireocereus stellatus* and *Cereus peruvianus* have all added inches to their growth and the outdoor experiment was a complete success despite the rain and cold weather we have had here the latter part of this summer.

Next spring, rain or shine, my whole collection goes back to the earth.

JAMES M. CARPENTER.

#### NATIVE CANADIAN CACTI

Please accept these few words of praise regarding "THE" JOURNAL. Each month sees it growing better and better. My one regret is that I did not know of it years, instead of only months, ago. It is hard to say in words just how much I value THE JOURNAL for its excellent illustrations and its splendid articles. Living, as I do, way up in the back woods, (literally, if not actually), away from all large libraries, and where no native cacti or succulents occur it is easy to see that THE JOURNAL fills a very special place with me. Being very much a novice, I, of course, find it very difficult to understand some of the more technical articles. However, I am not asking you not to print that kind because, six months or a year from now, when I re-read the articles in the "back-numbers" I may find that I can understand them quite well. So keep up the good work.

Though no cacti or succulents occur here as natives, perhaps it might prove interesting to you to know that there are three or four cacti sufficiently hardy to withstand our winters.

These being *Coryphantha vivipara*, *Opuntia fragilis*, *Opuntia polyacantha* and perhaps also *Neobesseya missouriensis*. These all occur naturally in the drier southern part of Manitoba, but none this far north where we secure more moisture. Just to show you what these cacti can stand, I should, perhaps, tell you that Kenville is located just a little north of 52° N. Lat., and that several days ago (Sept. 23rd) we were treated to six inches of snow (it has since melted) and that when winter really comes we experience temperatures ranging all the way downward from freezing to 45° F. below zero (sometimes even 50° F. below). How I envy you your California sunshine and warmth, with its year-round culture of cacti out-doors, while we, of modest means, are limited for 9 months of the year to a few plants in pots by a bright window.

GEORGE MAYER.

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*Sedum telephium* is a long-day desiring plant, usually requiring at least fifteen hours of daylight to be stimulated into flowering.



Photo by Eric Walther.

*Sarcostemma viminale*

SARCOSTEMMA VIMINALE R. Brown

By ERIC WALTHER

The recent appearance of the masterly column on the *Stapeliads* by Messrs. Sloane and White leads one to hope that presently the same authors may extend their field to cover some of the many other interesting succulent *Asclepiadaceae*.

In the meantime, we take the liberty of presenting a photo of one member of this group, usually met with in local collections under the misnomer *Euphorbia pendula*. While indeed this shows much resemblance to some of the leafless species of *Euphorbia*, even to possessing the same milky juice, one glance at the flowers, here pictured, will convince anyone, no matter how unscientific, that this plant certainly is much more like a *Stapelia* or *Ceropegia* than any *Euphorbia*. Every one of the seven open flowers pictured clearly shows the double corona and fleshy corolla-segments, which in this instance are nearly white.

*Sarcostemma viminale* R. Brown is widely distributed in tropical Africa. Several of its forms have been described as distinct species, none of which are recognized as valid by N. E. Brown in his treatment of the family in the "Flora of Tropical Africa." The name "viminale" is traceable to Linnaeus "Species Plantarum," Ed. 1:452, but there was included under *Euphorbia*. *Euphorbia pendula*

is a name applied by Link, antedated by Linnaeus. There is still another *E. pendula* Boiss., not necessarily identical with ours.

We have not yet seen any fruits, but these are the well-known twin pods of the *Asclepiadaceae*, not the 3-celled capsule of *Euphorbia*. The milky juice of *Sarcostemma* lacks the acrid quality of *Euphorbia*-sap, and as a matter of fact one species, *S. brunonianum* Wight & Arh. of India, is eaten by the natives as a salad, a quite refreshing one by reason of the pleasantly acid flower. However, all authorities repeat the tale of the danger consequent upon the occurrence together of this *Sarcostemma* with *Euphorbia tirucalli*, with whose very similar stems it may easily be confused, but the juice of which is a violent poison.

If perhaps not hardy out-of-doors everywhere in California, *Sarcostemma viminale* can be counted on to be absolutely drought-resistant; one of the regions where it is found being one of the world's driest spots. This is the so-called Namib-plateau of Southwest Africa, home of so many extreme xerophytes; and there our plant frequents the same haunts as that queerest of all flowering plants, the famous *Welwitschia mirabilis*.

## HYBRIDIZATION ON A LARGE SCALE

The hybridizer who elects to work with Agaves has to have more than usual agility to get in touch with his flower material, which in the larger species may be thirty feet up in the air. To assist him, the following invention is recommended: to the tip of a bamboo pole of sufficient length, tie a large kalsomine or paint brush with the bristles directed downward. With this apparatus the pollen of one plant may be transferred to the pistils of another. This ingenious device was not only thought out, but actually put into practice by the late Alwin Berger at La Mortola.

R. W. P.

## SOUTH AMERICAN CACTI

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## Epiphyllum or Phyllocactus

By CLARIAN STEELE

Some confusion seems to exist with regard to the use of the words *Epiphyllum* and *Phyllocactus*. It would be well to begin clarification with the derivation and history of these words. *Epiphyllum* is taken from the Greek *epi*, meaning *upon* and *phyllo*, meaning *leaf*. This has been interpreted to mean growing "leaf upon leaf" and also as "flower upon leaf." Each is equally correct, or rather incorrect, for, of course, *Epiphyllums* have no true leaves, as do none of the members of the tribe CEREAE to which they belong. However, when first described, they were thought actually to be growing flower upon leaf and one leaf upon another; but it was soon discovered that what had the appearance of leaves was actually the stem and body of the plant. Thus the name "*Epiphyllum*" is really a misnomer, as is also "*Phyllocactus*," which may be interpreted to mean "leaf-cactus."

We now come to the questions: What is an *Epiphyllum* and what is a *Phyllocactus*, or are the words actually synonymous? Our recognized American authorities, Britton & Rose, in their CACTACEAE give *Phyllocactus* as a synonym of *Epiphyllum*.

The general European use of the words applies to two distinct types of plants. The word "*Phyllocactus*" in European publications applies to what we in America know as *Epiphyllums* and their varied hybrids—the comparatively large, long jointed, usually flat or three-angled, practically spineless plants, having very large flowers, ordinarily borne at areoles along the margins of the joints. The word "*Epiphyllum*" to European minds means what the world popularly recognizes as the "Christmas-cactus" and other plants similar in superficial appearance, consisting of a chain-like growth of small, thin, spineless, bluntly oblong joints, and bearing flowers at the tip of the chain of joints.

The explanation for the diversion to the present day use of the words probably lies in the confusion arising from the early descriptions and the subsequent splitting of the genus. The first plant of this group to be described was *Epiphyllum phyllanthus* in 1812 as the type species of the genus. Later *truncatum* (the plant now popularly known as "Christmas-cactus") was added to this

genus. Very soon, however, it became evident that these two did not belong to the same genus, and in the new classification *truncatum* was erroneously allowed to retain the generic name *Epiphyllum*, while *phyllanthus* was taken as the type of the new genus, *Phyllocactus*, described in 1831. This based both the genera *Epiphyllum* and *Phyllocactus* on the same type specimen, making *Phyllocactus* a synonym of *Epiphyllum*.

Britton and Rose, in THE CACTACEAE, place *truncatus* (*E. truncatum*) in the genus *Zygocactus* and retain the original name *Epiphyllum* for *phyllanthus* and other closely allied species, of which in their monograph, sixteen are recognized.

All these true species are described as having white flowers, the only color at all being in the cream colored, straw or brownish outermost perianth segments of some species; but all innermost perianth-segments are pure white. *Epiphyllums* cross freely with many other genera of cactus, the resulting hybrids taking flower forms and colors from the other genera, while markedly retaining the plant characteristics of the *Epiphyllum* parentage. This fact no doubt explains the confusion of thinking and speaking of these diverse hybrids as *Epiphyllum* or *Phyllocactus*.

Fanciers of these *Epiphyllum* hybrids or "*Phyllos*" are seldom interested in including very many of the true species in their collections, as the flowers are mostly inferior objects compared to those produced by cross-pollination. Hybridizers and horticulturists for many years have been working with this group of plants, producing some very startling results in flowers that far exceed any other cultivated plant in the combination of such characteristics as size, form, fragrance, texture, range of color, and most incomparable of all, in depth and luminative qualities of color.

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